

AURORAS.

Brilliant auroral displays were observed generally from Maine to Washington and southward over Pennsylvania, the Ohio Valley, and eastern Colorado on the 25th, and from Maine to Montana and in the Ohio and Missouri Valleys on the 26th. Notable auroras were also noted as follows: 23d, New Hampshire, Vermont, Michigan, and in the upper Mississippi and Missouri valleys. 24th, New Hampshire, Vermont, and upper Mississippi valley. 23d to 26th and 29th and 30th in New England. 27th, 28th, and 29th in Maryland. 23d, 28th, and 29th in the Missouri and upper Mississippi valleys. The more prominent features of the more important displays are shown in the following table:

Auroral displays of April, 1892.

Date.	Station.	Extent of display.		Remarks.
		Azimuth.	Altitude.	
		°	°	
20	Manchester, N. H.	145 to 270	35	Faint, slender arch.
23	do	45	45	Diffused yellow light.
23	Northfield, Vt.	135 to 225	20	
23	Boston, Mass.	Cov'd 140	30	Arch of white light, with streamers.
23	Marquette, Mich.	135 to 225	90	Two arches, with streamers.
24	Manchester, N. H.	145 to 210	20	Arch of diffused yellow and green.
24	Northfield, Vt.		25	Pale yellow arch, with streamers.
25	Eastport, Me.		25	Brilliant arch, with luminous beams.
25	Manchester, N. H.	145 to 210	20	Streamers to zenith. At times display appeared like a waving curtain.
25	Northfield, Vt.	145 to 200	30	An arch, with waves of light.

Auroral displays of April, 1892—Continued.

Date.	Station.	Extent of display.		Remarks.
		Azimuth.	Altitude.	
		°	°	
25	Boston, Mass.		n'r zenith	Cloud-like appearance near and south of zenith.
25	North Billerica, Mass. .	In the n.	Zenith	Very brilliant, with "merry dancers."
25	Woods Holl, Mass.	140 to 220	45	Well-defined vertical bands.
25-26	Buffalo, N. Y.		40	Arch, with streamers and wavy motion from east to west.
25	Oswego, N. Y.		30	Double arch.
25	Wedgwood, N. Y.	120 to 265	Zenith	Streamers and curtains of white light.
25	Erie, Pa.	In the n.	10	Double arch.
25	Marquette, Mich.		75	Arch of pale green, with streamers to zenith.
25-26	Fort Buford, N. Dak. .	In nw., ne.	10	Diffused blue light, with "merry dancers."
25	Fort Assinaboine, Mont.	Cov'd 180	90	Very brilliant.
25-26	Helena, Mont.	Cov'd 120	25	Whitish arch, with streamers.
25	Miles City, Mont.	40 to 120	30	Two arches, with luminous clouds to zenith.
25	Colorado Springs, Colo. .		30	Arch of varying height. Green lower part and rosy at summit, with white streamers.
26	Eastport, Me.		30	Arch, with rose colored beams.
26	Manchester, N. H.	In the n.	30	Slender beams to altitude 70° to 80°.
26	Northfield, Vt.	In the n.	45	Pale yellow arch, with streamers.
26	New Haven, Conn.	Cov'd 90	30	Whitish arch, with streamers of greenish color.
26	Oswego, N. Y.		35	Three arches and "merry dancers."
27-28	Marquette, Mich.	180 to 225	10	Pale green arch.
29	Alpena, Mich.		10	Arch of pale straw color.
30	Eastport, Me.		25	Luminous beams.
30	Oswego, N. Y.	135 to 225	20	Irregular arch.
30	New Whatcom, Wash. .		80	Arch.

MISCELLANEOUS PHENOMENA.

DROUGHT.

In Florida the month was exceptionally dry. Oranges and small fruits were greatly damaged, and the oat crop was reported a complete failure. A very severe drought prevailed in southern and extreme western Texas. Corn and cotton seed failed to germinate, garden vegetables were a failure, and the outlook for wheat and oats was poor. Owing to absence of grass and water a great loss of live stock occurred. Continued

dry weather and hot winds, with heavy duststorms, severely injured vegetation about Fort Stanton, N. Mex. Grass on the ranges was backward and a great loss of live stock was reported. The month was very dry generally over Oklahoma Territory. Drought conditions were reported in the Hudson Valley about Albany, N. Y., on the 19th. At Blue Hill Observatory, Mass., the rainfall was the least ever noted, 0.10 inch, only, being recorded from March 24th to April 21st. The month was unusually dry in parts of New Hampshire.

STATE WEATHER SERVICES.

[Temperature in degrees Fahrenheit; precipitation, including melted snow, in inches and hundredths.]

The following extracts and summaries are republished from reports for April, 1892, of the directors of the various state weather services:

ALABAMA.

Temperature.—The mean was 1.3 above the normal; maximum, 91, at Wiggins, 30th; minimum, 29, at Mountain Home, 9th; greatest monthly range, 59, at Mountain Home; least monthly range, 33, at Pittsboro.

Precipitation.—The average was 0.17 below the normal; greatest monthly, 14.78, at Florence; least monthly, 0.00, at Pittsboro.

Wind.—Prevailing direction, southeast.—*P. H. Mell, Observer, Weather Bureau, Auburn, director.*

ARIZONA.

Temperature.—The mean was below the normal; maximum, 101, at Fort Mohave, 10th; minimum, 12, at Flagstaff, 20th; greatest monthly range, 68, at Fort Mohave; least monthly range, 38, at Gila Bend.

Precipitation.—The average was about normal; greatest monthly, 3.33, at Flagstaff; least monthly, 0.00, at Oro, Teviston, and Tombstone.

Wind.—Prevailing direction, west.—*J. C. Hayden, Observer, Weather Bureau, Tucson, director.*

ARKANSAS.

Temperature.—The mean was 1.3 below the normal; maximum, 97, at Keesees Ferry, 18th; minimum, 27, at Dallas, 22d; greatest monthly range, 66, at Keesees Ferry; least monthly range, 34, at Washington.

Precipitation.—The average was 2.53 above the normal; greatest monthly, 11.06, at Gaines Landing; least monthly, 3.35, at Mount Nebo.

Wind.—Prevailing direction, south.—*M. F. Locke, Commissioner of Agriculture, Little Rock, director; F. H. Clarke, Observer, Weather Bureau, assistant.*

CALIFORNIA.

Temperature.—The mean was 2.7 below the normal; maximum, 96, at Needles, 9th; minimum, 24, at Fort Jones (near), 17th; greatest monthly range, 60, at Riverside; least monthly range, 28, at Salinas.

Precipitation.—The average was 0.28 below the normal; greatest monthly, 9.54, at Upper Mattole; least monthly, 0.00, at Independence.

Wind.—Prevailing directions, west and southwest.—*J. A. Barwick, Observer, Weather Bureau, Sacramento, director.*

COLORADO.

Temperature.—The mean was 2.5 below the normal; maximum, 90, at Lamar and Robb, 30th, and at Rocky Ford, 29th; minimum, —9, at Breckenridge, 4th; greatest monthly range, 79, at Breckenridge; least monthly range, 48, at Climax.

Precipitation.—The average was 0.40 below the normal; greatest monthly, 5.95, at Breckenridge; least monthly, 0.02, at Brandon.

Wind.—Prevailing direction, west.—*W. S. Miller, Observer, Weather Bureau, Denver, director.*

FLORIDA.

The month was remarkable for the prevalence of a drought of unprecedented severity.